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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/491,661	01/27/00	GRIDLEY J	29423/209

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LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STETSON AVENUE
CHICAGO IL 60601-6780

EXAMINER

FISCHER, J

ART UNIT PAPER NUMBER

1733

DATE MAILED: 09/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/491,661	Applicant(s) GRIDLEY ET AL.	
	Examiner Justin R Fischer	Art Unit 1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3 and 7</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2 and 9-13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As currently drafted, it is unclear what structural limitation, if any, these claims contain to further define the apparatus of claims 1 and 8. Thus, the scope of the invention cannot be properly interpreted to include all the limitations of the claimed invention, rendering the claims indefinite.

Claim Objections

3. Claims 2 and 9-13 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In each instance, applicant has intended to further limit the apparatus of claims 1 and 8 with method limitations, not structural limitations. Therefore, the aforementioned claims are objected to since they do not alter the structural makeup of the claimed invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 8-14 rejected under 35 U.S.C. 102(b) as being anticipated by Taylor (US 4,096,008). With respect to claims 1, 3, and 8, as best depicted in Figure 1, Taylor teaches a tread cutting apparatus comprising a lineal measurement device and a tread dispenser assembly having a molding element and a cutting element that electronically cooperates with said measurement device to properly sever the tread strip. It should be noted that independent claims 1 and 8 are directed toward a tire casing having a cushion gum layer, though they do not contain any structural limitation to suggest such a design. In any event, it is evident from Figure 1 that Taylor is also directed toward the employment of a gum cushion layer.

With respect to claim 14, Taylor describes a method of cutting a length of tread comprising the following steps: measuring a circumference of the tire casing, communicating electronically the circumference of the tire to the tire tread dispenser, and dispensing a length of tread based on the circumference. It should be noted that applicant has defined the "tread dispenser" to include a "tread cutter" and as such, Taylor teaches a communication between the measuring device and the "tread dispenser". Lastly, though the reference fails to expressly state that the measured circumference incorporates the thickness of the gum cushion layer, it is the examiner's position that the measurement device can communicate either circumference (with or without gum cushion layer). As described in Column 3, Lines 18-20, the cushion strip may be applied to the tire simultaneously with the tread or before the tread is applied.

Thus, the circumference measurement would involve the tire casing by itself or the tire casing with the gum cushion layer applied.

Regarding claims 2 and 9-13, applicant has intended to further limit the apparatus of the independent claims with method limitations. As mentioned in the claim objections and 112, 2nd paragraph rejections above, these claims do not alter the structural makeup of the claimed apparatus and therefore are rejectable in an analogous manner.

As per claim 2, the claim does not include any structural limitation to provide the pushing of the tread length, as defined by the claimed invention. In any event, though Taylor is silent with respect to the "tread dispensing assembly", it is the examiner's position that a series of rollers would have been included in said assembly to propel or push the tread along the track or conveying system.

With respect to claims 9 -12, it is unclear what structural limitation, if any, these claims contain to further define the apparatus of claim 8. In any event, the apparatus described by Taylor can function through the use of an operator-controlled or automated cutting assembly. Furthermore, an operator-controlled assembly provides the operator with the capability of forming a splice based on matching the tread pattern at the leading edge and the trailing edge. Lastly, Taylor does describe the use of a measurement device to communicate with the cutting assembly and properly sever the length of tread.

Regarding claim 13, it is unclear what structure is provided to provide the "pushing and pulling", as defined in the claimed invention. In any event, it has been previously noted that although Taylor is silent with respect to the "tread dispensing

assembly", conventional techniques utilize a series of rollers to push a length of tread from a material roll. Additionally, Taylor does describe the use of a gripping or clamping mechanism to push the tread along the track system

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 rejected under 35 U.S.C. 103(a) as obvious over Taylor. As stated above, Taylor describes an apparatus for retreading comprising a tire casing mount, a cushion gum dispenser, a tread dispenser, and a tread applicator, all of which are integrated in to a single machine. Additionally, the reference depicts the use of a flat conveyor system to guide the length of tread into the application assembly region. Though the reference does not expressly state the use of a "curved track", such a configuration would have been obvious to one of ordinary skill in the art at the time of the invention in view of Taylor as described below.

Applicant has stated that a "curved track" eliminates any substantial bending or stretching caused by abrupt changes in the path of travel (Page 9, Lines 2-6). Taylor, on the other hand, depicts a flat conveying system or track that guides the length of tread. It is evident that the track outlined by Taylor does not contain any abrupt changes in the path of travel and thus does not contribute to any additional bending or stretching. Additionally, the specific "curved track" described by applicant is an obvious

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variant over the track illustrated by Taylor and would be beneficial if the point of application needed to be different from the level at which the tread was dispensed due to the design of the additional apparatus. Thus, Taylor describes a track system that operates as an equivalent alternative to the claimed track system in that it eliminates substantial bending and stretching, said claimed track system being an obvious variant over the track system defined by Taylor.

8. Claims 5-7 rejected under 35 U.S.C. 103(a) as being unpatentable over Currie (US 5,882,457) in view of Taylor, Okuyama (US 4,804,426) and Miyamoto (US 5,292,398). Currie teaches the use of a tire retreading apparatus having a tread gripper (clamping mechanism) to insure the placement of the leading end on the drum and then the placement of the trailing end on the drum over the leading end to provide the desired splice. It is further evident from the referenced figures that the length of tread is necessarily dispensed from a "tread dispenser" configuration, as defined in the claimed invention, such as a combination of a molding apparatus, an extrusion apparatus, or a material roll of tread and a cutting mechanism (Taylor clearly depict the conventional "tread dispensing" configuration comprising a tread supply and a cutting means). However, the reference does not expressly state the employment of a measurement device or a "first and second clamp". The use of measurement devices in retreading applications is extremely well known, as evidenced by Taylor. Lastly, Okuyama and Miyamoto describe the use of clamping mechanisms in the front and rear portions of the tread, independently. Thus, the employment of a measuring device and a "first and

second clamp" would have been obvious to one of ordinary skill in the art at the time of the invention as set forth below.

Regarding claims 5 and 7, measurement devices are conventionally employed to monitor the length of tread dispensed on the tire casing and thus properly sever the tread strip. For example, Taylor describes the use of such a device to electronically cooperate with the "tread dispensing" assembly to precisely sever the tread strip to conform to the circumference of the tire. Thus, a measurement device would have been readily appreciated by one of ordinary skill in the art for the benefits described above. With respect to a "first and second clamp", Currie depicts the use of a gripper or clamp mechanism that initially engages a front end of the tread and subsequently engages a rear end of the tread upon the front end being applied to the drum. Thus, the reference clearly depicts the necessity to clamp both the front and rear end of the tread length to monitor the progress along the conveyor and alignment upon the drum. Though the reference does not depict two, independent clamps, Okuyama (Column 1, Lines 30-40) and Miyamoto (Abstract) depict the use of a first clamp (front portion) and a second clamp (rear portion), respectively. Therefore, one of ordinary skill in the art at the time of the invention would have readily appreciated the use of a single clamping mechanism for both the front and rear portions, as disclosed by Currie, or the use of two independent clamping mechanisms in the front and rear portion, as suggested by Okuyama and Miyamoto.

Lastly, regarding claim 6, Currie describes a series of sensors or photoeyes that detect the position of a length of tread along the conveyor track system, such that a first

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clamping is initiated upon reaching one of said sensors. Thus, the reference clearly displays a sensing means to initiate the clamping of the leading and trailing edges. However, there is no "stop" apparatus that initiates the clamping mechanism. In any event, it is the examiner's position that the stop and sensing means described by applicant and Currie, respectively, can be viewed as functional equivalents in the art since they both initiate a first clamping of the leading edge. It is additionally noted that both the claimed "stop" apparatus and the sensing means described by Currie are conventionally used to provide a signal or some additional initiation activity in various industries. Thus, such a design would have been readily appreciated by one of ordinary skill in the art at the time of the invention.

9. Claims 14-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Currie in view of Taylor and Meyer (US 5,485,727). Currie describes a method of applying a length of tread comprising the following steps: feeding a tire tread onto a conveyor, gripping a leading edge with a gripper or clamping mechanism, conveying the tread and removing the gripper from the leading edge, applying the leading edge to a rotating drum and subsequently moving the gripper to a position over the trailing edge, and splicing the ends of the tread. Additionally, the drum is designed with a drum encoder that measures the circumference of the drum. However, the reference is silent with respect to the "tread dispensing assembly", including any specific cutting or tread formation means (i.e. molding, pre-formed material roll). Meyer depicts a conventional treading cutting assembly in which either an operator-controlled or automated assembly can be used as alternatives. Additionally, the use of a measurement device to

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communicate the circumference of the tire casing and control the length of tread applied is well known, as evidenced by Taylor, and would have been obvious to one of ordinary skill in the art at the time of the invention as set forth below.

Regarding claim 14, as stated above, Currie employs a drum encoder to measure the circumference of the drum (Column 2, Lines 17-18). The reference however, does not include any characteristics of the "tread dispensing assembly" and thus necessarily fails to establish a communication between the drum encoder and the "tread dispensing assembly". However, the use of measurement devices to provide such a function is conventional in the retreading art. Thus, it is very likely that an electrical communication between the encoder and the "tread dispensing assembly" does exist, though it is not explicitly outlined. For example, Taylor describes the employment of a lineal measurement device that communicates with a cutting device (described as part of "tread dispensing assembly" by applicant) to dispense the proper length of tread.

As per claims 15 and 17, applicant has included a "stop" apparatus that signals a first clamping of the leading edge of the tread, upon which the "stop" apparatus is retracted. In an analogous manner to the rejection of claim 6 above, a "stop" or sensing means can be viewed as functional alternatives and thus would have been readily appreciated by one of ordinary skill in the art at the time of the invention.

With respect to claims 16 and 18, it was previously noted that the leading edge and the trailing edge are engaged with a gripping or clamping mechanism.

As per claims 19 and 20, conventional retreading methods include the use of either an automated cutting assembly or an operator-controlled assembly. For example, Meyer explicitly states the use of an operator or an automated assembly as equivalent alternatives for a variety of tasks, including tread application and subsequent cutting (Column 10, Lines 61-67).

Regarding claim 21, it has been previously mentioned that operator-controlled and automated cutting assemblies are conventionally employed in retreading methods. Thus, it is evident that a tread strip could be severed in a manner that matches the tread pattern in the leading edge and the trailing edge, such a technique being used to provide a desired aesthetic quality to the tread region of the tire.

Conclusion

10. Applicant is advised that should claim 3 be found allowable, claims 8-13 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers


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for the organization where this application or proceeding is assigned are (703) 305-7718 for regular communications and (703) 305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Justin Fischer

September 24, 2001


JEFF H. AFTERSUT
PRIMARY EXAMINER
GROUP 1300